**Docket #:** S06-218

# MRI - Multi-resolution robust field map estimation for water and fat separation

A method for mapping field inhomogeneity for forming a magnetic resonance image is provided. A magnetic resonance excitation is applied. A plurality of k-space echoes signals is acquired. A periodic cost function is calculated from the acquired plurality of k-space echo signals. A period of the calculated periodic cost function is divided into multiple regions. A search algorithm is used to locate a local minimum in each region. Located local minimums are chosen to provide global smoothness.

# **Applications**

 Nnovel method that efficiently and robustly estimates field map of images acquired from multi-echo sequences.

## **Patents**

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### **Innovators**

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